

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A scanning apparatus, the scanning apparatus being suitable for scanning an object along a first axis, the scanning apparatus comprising:

a first actuator;

a first stage, the first stage being coupled to the first actuator, the first actuator being arranged to move the first stage along the first axis;

a second stage, the second stage being arranged to accommodate the object;

a first coupler, the first coupler having a first end and a second end, the first coupler being aligned along the first axis, wherein the first end of the first coupler is arranged to contact the first stage and the second end of the first coupler is arranged to contact the second stage, the first coupler being a stopper, the first end of the first coupler being a first end of the stopper that is substantially directly coupled to the first stage, the second end of the first coupler being a second end of the stopper being arranged to contact the second stage to substantially push the second stage when the first actuator causes the first stage to scan along the first axis in the first direction; and

a second coupler, the second coupler having a first end and a second end, the second coupler being aligned along the first axis, wherein the first end of the second coupler is arranged to contact the first stage and the second end of the second coupler is arranged to contact the second stage, and wherein when the first actuator causes the first stage to scan along the first axis in a first direction, the first coupler causes the second stage to scan along the first axis through the first coupler.

Claim 2 (original): A scanning apparatus according to claim 1 further including:

a second actuator, the second actuator being arranged to act between the first stage and arranged to move the second stage along the first axis substantially independently from the first stage.

Claim 3 (original): A scanning apparatus according to claim 2 wherein the first actuator is arranged to accelerate the first stage and the second stage along the first axis, and the second actuator is arranged to accelerate the second stage along the first axis.

Claim 4 (original): A scanning apparatus according to claim 2 wherein when the first actuator causes the first stage to scan along the first axis in a first direction, the first coupler is in a first state and the second coupler is in a second state.

Claim 5 (previously presented): A scanning apparatus, the scanning apparatus being suitable for scanning an object along a first axis, the scanning apparatus comprising:

- a first actuator;

- a first stage, the first stage being coupled to the first actuator, the first actuator being arranged to move the first stage along the first axis;

- a second stage, the second stage being arranged to accommodate the object;

- a second actuator, the second actuator being arranged to act between the first stage and arranged to move the second stage along the first axis substantially independently from the first stage;

- a first coupler, the first coupler having a first end and a second end, the first coupler being aligned along the first axis, wherein the first end of the first coupler is arranged to contact the first stage and the second end of the first coupler is arranged to contact the second stage; and

- a second coupler, the second coupler having a first end and a second end, the second coupler being aligned along the first axis, the first end of the second coupler being arranged to contact the first stage and the second end of the second coupler being arranged to contact the second stage, the first coupler causing the second stage to scan along the first axis through the first coupler when the first actuator causes the first stage to scan along the first axis in a first direction, wherein when the first actuator causes the first stage to scan along the first axis in a first direction, the first coupler is in a first state to provide a substantially rigid coupling between the first stage and the second stage and the second coupler is in a second state to enable substantially minimal vibrations to be transmitted between the first stage and the second stage through the second coupler.

Claim 6 (previously presented): A scanning apparatus according to claim 5 wherein the first coupler is a first cord and the second coupler is a second cord.

Claim 7 (original): A scanning apparatus according to claim 2 wherein when the first actuator causes the first stage to scan along the first axis in a second direction, the first coupler is in a second state and the second coupler is in a first state.

Claim 8 (original): A scanning apparatus according to claim 7 wherein when the first coupler is in the first state, the first coupler provides a substantially rigid coupling between the first stage and the second stage, and wherein when the second coupler is in the second state, the second coupler enables substantially minimal vibrations to be transmitted between the first stage and the second stage through the second coupler.

Claim 9 (original): A scanning apparatus according to claim 1 wherein when the first stage is not moving, the first coupler and the second coupler are arranged such that the first coupler and the second coupler enable substantially minimal vibrations to be transmitted between the first stage and the second stage.

Claim 10 (canceled)

Claim 11 (original): An exposure apparatus comprising the scanning apparatus of claim 1.

Claim 12 (original): A device manufactured with the exposure apparatus of claim 11.

Claim 13 (original): A wafer on which an image has been formed by the exposure apparatus of claim 11.

Claim 14-38 (canceled)

Claim 39 (previously presented): A positioning apparatus comprising:
a first stage, the first stage being arranged to be movable along at least one axis;
a first driving device coupled to the first stage, the first driving device moving the first stage along the at least one axis;
a second stage, the second stage being arranged to be movable with the first stage along the at least one axis;
a second driving device coupled to the second stage, the second driving device moving the second stage relative to the first stage; and
an actuator disposed between the first stage and the second stage, the actuator being arranged to apply a force to the second stage, wherein when the first driving device accelerates the first stage along the at least one axis in a first direction, the actuator applies the force such that the first stage provides a pulling force on the second stage from a direction of movement of the second stage, and when at least one of a first speed of the first stage and a second speed of the second stage is substantially constant, the second driving device moves the second stage to position the second stage at a desired position.

Claim 40 (original): An exposure apparatus comprising the positioning apparatus of claim 39.

Claim 41 (original): A device manufactured with the exposure apparatus of claim 40.

Claim 42 (original): A wafer on which an image has been formed by the exposure apparatus of claim 39.

Claim 43 (previously presented): A method for positioning an object, the method comprising:
accelerating a first stage along at least one axis;
accelerating a second stage with the first stage along the at least one axis in a first direction by an actuator disposed between the first stage and the second stage when the first stage

accelerates in the first direction, wherein the actuator accelerates the second stage such that the first stage acts as a pulling force on the second stage from a direction of movement of the second stage; and

positioning the second stage by utilizing a driving device that moves the second stage relative to the first stage when at least one of a first speed of the first stage and a second speed of the second stage is constant.

Claim 44 (original): A method for operating an exposure apparatus comprising the method for positioning an object of claim 43.

Claim 45 (original): A method for making an object including at least a photolithography process, wherein the photolithography process utilizes the method of operating an exposure apparatus of claim 44.

Claim 46 (original): A method for making a wafer utilizing the method of operating an exposure apparatus of claim 44.

Claim 47 (previously presented): A scanning apparatus, the scanning apparatus being suitable for scanning an object along a first axis, the scanning apparatus comprising:

a first actuator;

a first stage, the first stage being coupled to the first actuator, the first actuator being arranged to move the first stage along the first axis;

a second stage, the second stage being arranged to accommodate the object;

a first coupler, the first coupler having a first end and a second end, the first coupler being aligned along the first axis, wherein the first end of the first coupler is arranged to contact the first stage and the second end of the first coupler is arranged to contact the second stage; and

a second coupler, the second coupler having a first end and a second end, the second coupler being aligned along the first axis, wherein the first end of the second coupler is arranged to contact the first stage and the second end of the second coupler is arranged to contact the second stage, and wherein when the first actuator causes the first stage to scan along the first axis

in a first direction, the first coupler causes the second stage to scan along the first axis through the first coupler, wherein the first coupler is a stopper, the first end of the first coupler being a first end of the stopper that is substantially directly coupled to the first stage, the second end of the first coupler being a second end of the stopper that is arranged to contact the second stage to substantially push the second stage when the first actuator causes the first stage to scan along the first axis in the first direction.

Claim 48 (currently amended): A stage apparatus comprising:
a first assembly, the first assembly including a first stage and a first actuator, the first stage being coupled to the first actuator, the first actuator being [[and]] arranged to move the first stage along a first axis;
a second assembly, the second assembly including a second stage; and
a second actuator, the second actuator being arranged substantially between the first stage and the second stage, wherein when the first actuator moves the first stage along the first axis, the second actuator is arranged to apply a force to the second stage and to substantially control acceleration of the second stage.

Claim 49 (canceled)

Claim 50 (previously presented): The stage apparatus of claim 48 wherein the second actuator is an electromagnetic actuator.

Claim 51 (previously presented): The stage apparatus of claim 48 further including:
a third actuator, the third actuator being arranged to cooperate with the second actuator to apply the force to the second stage and to substantially control the acceleration of the second stage.

Claim 52 (previously presented): The stage apparatus of claim 48 further comprising:
a fine actuator that actuates the second stage when the second actuator does not apply the force to the second stage.